

### **REMARKS**

Claims 1, 6, 11-15, 17-22 and 24 are amended. Claims 1-3, 6-8, 11-22 and 24-31 are pending in the application.

Claims 11-17 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner indicates that the claim 11 recited "under otherwise identical conditions" is vague and renders the claim indefinite. Without admission as to the propriety of the Examiner's rejection, claim 11 is amended to no longer recite "under otherwise identical conditions". Accordingly, applicant requests withdrawal of the § 112 rejection of claim 11 and of dependent claims 12-17 in the Examiner's next action.

Claims 1-3, 6-8 and 25-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirlin, U.S. Patent No. 5,711,816, in view of either Senzaki, U.S. Patent No. 6,238,734, or DiMeo, U.S. Patent No. 5,972,430. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 1-3, 6-8 and 25-28 are allowable over the cited combinations of Kirlin, Senzaki and DiMeo for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every limitation in any of those claims and fail to provide a basis for a reasonable expectation of success.

Independent claim 1 as amended recites providing gaseous barium, strontium and titanium while flowing at least one gaseous oxidizer comprising water, and during the

flowing of the at least one gaseous oxidizer changing a flow rate of one or more oxidizers to produce a non-homogenous ratio of barium relative to strontium within the dielectric layer. The amendment to claim 1 is supported by the specification at, for example, page 8, line 18 through page 9, line 6. Kirlin discloses that a variation in Ba/Sr ratio can be achieved by varying the concentrations of the Ba and the Sr precursors in a solution to provide a film having a particular ratio (col. 13, ll. 23-33). Kirlin does not disclose or suggest the claim 1 recited gaseous oxidizer comprising water or the recited changing a flow rate of one or more oxidizers during the flowing at least one gaseous oxidizer to produce a non-homogenous ratio of barium relative to strontium in a dielectric layer. Further, Kirlin does not provide a basis for a reasonable expectation of achieving the recited non-homogenous ratio of barium relative to strontium within a dielectric layer utilizing a change in flow rate of one or more oxidizers.

As acknowledged at page 9 of the present Action, neither Senzaki nor DiMeo teaches or suggests the claim 1 recited non-homogenous ratio of barium relative to strontium within a dielectric layer. As combined with Kirlin, neither DiMeo nor Senzaki contributes toward suggesting the claim 1 recited changing a flow rate of one or more oxidizers to produce a non-homogenous ratio of barium relative to strontium within the dielectric layer. Nor does either of Senzaki or DiMeo contribute toward providing a basis for a reasonable expectation of achieving the claim 1 recited non-homogenous ratio of barium relative to strontium with a dielectric layer by changing a flow rate of one or more oxidizers during flowing of at least one gaseous oxidizer comprising water. Accordingly, independent claim 1 is not rendered obvious by the cited combinations of Kirlin and DiMeo or Senzaki and is allowable over these references.

Dependent claims 2-3 and 25-27 are allowable over the cited combinations of Kirlin,

Senzaki and DiMeo for at least the reason that they depend from allowable base claim 1.

As amended, independent claim 6 recites adjusting a flow rate of at least one gaseous oxidizer to produce a first portion of a dielectric layer comprising a first ratio of barium relative to strontium and a second portion of the dielectric layer having a second ratio of barium relative to strontium, the first ratio differing from the second ratio. Independent claim 6 is allowable over the cited combinations of Kirlin and DiMeo or Senzaki for at least reasons similar to those discussed above with respect to independent claim 1. Dependent claims 7-8 and 28 are allowable over Kirlin, Senzaki and DiMeo for at least the reason that they depend from allowable base claim 6.

Claims 11-22, 24 and 29-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over various cited combinations of Kirlin, Senzaki, DiMeo and Stauf, U.S. Patent No. 6,277,436. With respect to independent claim 11, as amended such recites simultaneously providing gaseous barium, strontium and titanium, and flowing gaseous oxidizers to the reactor, the flowing gaseous oxidizers comprising flowing H<sub>2</sub>O and utilizing the flowing H<sub>2</sub>O to control an amount of titanate incorporated into the dielectric layer. The amendment to claim 11 is supported by the specification at, for example, pages 10-11. DiMeo discloses various oxidizers including water (col. 9, ll. 1-4) however, DiMeo does not disclose or suggest the claim 11 recited deposition method utilizing an oxidizer comprising water and utilizing the flowing of water to control an amount of titanate incorporated into a dielectric layer.

Not one of Stauf, Senzaki or Kirlin discloses or suggests the claim 11 recited gaseous oxidizers comprising water or contributes toward suggesting the recited utilizing the flowing of water to control an amount of titanate incorporated into the dielectric layer. Further, as combined, the various cited combinations of DiMeo, Stauf, Senzaki and Kirlin

do not provide a basis for a reasonable expectation of achieving the claim 11 recited controlling an amount of titanate incorporated into a dielectric layer utilizing flowing water during formation of a dielectric layer. Accordingly, independent claim 11 is not rendered obvious by the various cited combinations of Kirlin, Senzaki, DiMeo and Stauf and is allowable over these references.

Claims 12-15 and 17 are amended to properly depend from independent claim 11. Dependent claims 12-17 and 29-30 are allowable over the cited combinations of Kirlin, Senzaki, DiMeo and Stauf for at least the reason that they depend from allowable base claim 11.

Referring to independent claim 18, as amended such recites simultaneously providing gaseous barium strontium and titanium and flowing gaseous oxidizers. Claim 18 additionally recites that the oxidizers comprise  $H_2O_2$  and that the flowing of  $H_2O_2$  is utilized to control the amount of titanium incorporated into the dielectric layer and to control the rate of deposition of the dielectric layer. Independent claim 18 is allowable over the various cited combinations of Kirlin, Senzaki, DiMeo and Stauf for at least reasons similar to those discussed above with respect to independent claim 11.

Claims 19-22 and 24 are amended to properly depend from independent claim 18. Dependent claims 19-22, 24 and 31 are allowable over the various cited combinations of Kirlin, Senzaki, DiMeo and Stauf for at least the reason that they depend from allowable base claim 18.

For the reasons discussed above, pending claims 1-3, 6-8, 11-22 and 24-31 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

Respectfully submitted,

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